

## State of Utah

## **DEPARTMENT OF NATURAL RESOURCES**

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining JOHN R. BAZA Division Director

## **Minerals Inspection Report**

Report Date:

09/08/2015

Reviewed M

Mine Name: PR Spring Mine	Permit Number:	M/47/0090	Mine Status:	Active
Operator Name: US Oil Sands	Inspection Date:	8/19/2015	Permit Fees:	Paid
Inspector(s): A. Abate, M. Tenney	Inspection Time:	10 AM	Bond Amount:	\$376,000
Attendee(s): David Hansen, Consultant, D. Thornton,	+ Weather:	Sunny 70s	Bond Escalation:	6/13/2019
Inspection Purpose: Determine sampling locations for water monitoring program			Prior Inspection:	08/05/2014

**Conclusions and Recommendations** 

Per the Division Order issued on July 17th, PR Springs was required to add water monitoring requirements to their Notice of Intention prior to November 1, 2015. Until that time, no processing of ore shall take place. The purpose of this inspection was to meet with the consultant and propose which springs, seeps, and monitoring well locations would be targeted for the sampling program. It was discussed that the monitoring program would involve collecting samples from the Delambert Ranch spring located in Main Canyon ID: MC-C, Spring MC-B (when flowing), a spring in Long Shot Canyon, PR Spring, and one sample from one of the production wells on the mine site. The sampling plan is not yet finalized however; it will likely consist of field parameters such as temp, flow, conductivity, TDS, and a compound that will be a tracer for the solvent used in the mining process, d-Limonene. The frequency of sampling is yet to be determined. The company will be submitting the water monitoring plan as an amendment subject to Division approval.

	Elements of Inspection	Evaluated & Commented	Enforcement
1.	Permits, Revisions, Transfer, Bonds		
2.	Public Safety (shafts, adits, trash, signs, highwalls)		
3.	Protection of Drainages/Erosion Control		
4.	Deleterious Material		
5.	Roads (maintenance, surfacing, dust control, safety)		
6.	Reclamation		
7.	Backfilling/Grading (trenches, pits, roads, highwalls, shafts)		
8.	Soils		
9.	Revegetation		
10.	Other		

The first stop was to examine the reservoir at the Delambert Ranch. Reservoir water is collected behind a large earthen dam. Water in the reservoir appears to be fed primarily by an alluvial system at the canyon bottom that collects precipitation. Vegetation observed in the canyon bottom was mostly wetted meadow grasses. Two springs were identified in the area of Delambert's ranch. These springs both outcrop on the northeast slope of the south side of Main Canyon and daylighted at the same elevation. The springs appear to contribute some water to the alluvial valley, but they are not what appear to be the primary source of water. The Delambert spring MC-C was observed to be flowing at approximately 8-9 gallons per minute. One was previously unidentified (noted as DEL1) as a GPS point. This spring was flowing at approximately 5 gallons per minute.

Access to the property where spring MC-A is located was not granted by the property owner. As such, this spring could not be evaluated during this visit. It is likely that the property owner will not grant access to the spring for sampling purposes.

Visited Spring MC-B which was dry at the time of the visit but has reported to flow only occasionally. Mr. Delambert claimed that this spring dried up in the recent past.

Visited PR Spring: The spring was not flowing at the time of the visit. Electric fencing has been installed around the spring. Only a trickle of water was discharging from PR Spring.

Visited the spring locations in Long Shot Canyon. These springs were flowing. Similar to DEL1 and MC-C, these springs outcrop on the northeast slope of the south side of Main Canyon. All springs identified during this visit originated in bedrock.



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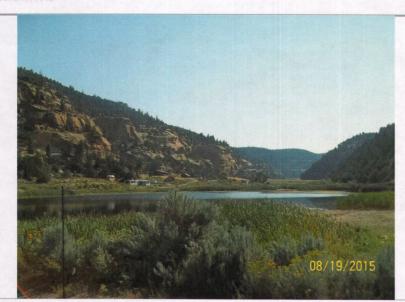
Page 2 of 5

Inspector's Signature:

CC: John Blake, SITLA jblake@utah.gov
Doug Thornton doug.thornton@usoilsandsinc.com

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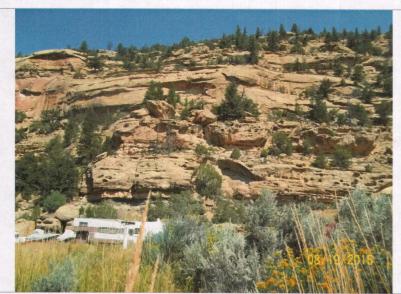
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View of the reservoir at Delambert Ranch looking east.



An example of the meadow vegetation found in the canyon bottom of Delambert Ranch.



The ranch sits at the base of the canyon. These sandstone outcrops make up the Wasatch formation.



The previously unidentified spring DEL1, located on the southern side of Main Canyon and originating from bedrock on the north-facing slope.



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The enclosed area is the Delambert C Spring. Flow was estimated to be 8-9 gallons per minute.



Spring MC-B not flowing at the time of the site visit.



Springs identified in Long Shot canyon were seeping at approximately 1 gallon per minute.



One of the springs in Long Shot canyon will be sampled.





